

WE CLAIM:

1. An optical detection system for vehicles, comprising:
 - a camera optics disposed on the vehicle;
 - a control device communicating with said camera optics for controlling at least one of a focus and an image frame of said camera optics; and
 - a signal transmitter for generating and communicating signals to said control device, wherein said camera optics is controlled in dependence on said signals.
2. The optical detection system of claim 1, wherein the vehicle is a motor vehicle.
3. The optical detection system of claim 1, wherein said signal transmitter comprises sensors disposed on the vehicle to detect objects in a vicinity of the vehicle.
4. The optical detection system of claim 3, wherein said sensors are part of at least one of a parking assistance system, a distance control system, a lane deviation warning system, a night vision system, and a system for early detection of accident situations.
5. The optical detection system of claim 3, wherein said sensors are at least one of ultrasonic, radar, and infrared sensors.
6. The optical detection system of claim 1, wherein said signal transmitter comprises a pattern or image detection device.

7. The optical detection system of claim 1, further comprising a display unit coupled to at least one of said camera optics and said control device.
8. The optical detection system of claim 1, wherein said camera optics is disposed in a rear region of the vehicle.
9. The optical detection system of claim 1, wherein said camera optics is disposed in a front region of the vehicle.
10. The optical detection system of claim 1, wherein said camera optics can be pivoted about and/or displaced along one or more device axes thereof.
11. A control device in an optical detection system for vehicles, the optical detection system having a camera optics disposed on the vehicle and a signal transmitter for generating and communicating signals to the control device, with the camera optics being controlled in dependence on said signals, wherein the control device comprises means for communicating with the camera optics to control at least one of a focus and an image frame of the camera optics.
12. A method for operating the optical detection system of claim 1, wherein, when the vehicle approaches an object in a vicinity of the vehicle, said focus of said camera optics is reduced such that said image frame is enlarged to detect the entire object or substantial parts thereof.

13. A method for operating the control device of claim 11, wherein, when the vehicle approaches an object in a vicinity of the vehicle, the focus of the camera optics is reduced such that the image frame is enlarged to detect the entire object or substantial parts thereof.
14. A method for operating the optical detection system of claim 1, wherein, when the vehicle approaches an object in a vicinity of the vehicle, said camera optics is pivoted and/or displaced to permit detection of the entire object or of substantial parts thereof.
15. A method for operating the control device of claim 11, wherein when the vehicle approaches an object in a vicinity of the vehicle, the camera optics is pivoted and/or displaced to permit detection of the entire object or of substantial parts thereof.
16. A method for operating the optical detection system of claim 1, wherein, when the vehicle approaches an object in a vicinity of the vehicle, said focus of said camera optics is reduced and said camera optics is pivoted and/or displaced.
17. A method for operating the control device of claim 11, wherein, when the vehicles approaches an object in a vicinity of the vehicle, the focus of the camera optics is reduced and the camera optics is pivoted and/or displaced.
18. A method for operating the optical detection system of claim 1, through operation of said camera optics, through operation of said

control device to control said focus and/or said image frame of said camera optics, and through operation of said signal transmitter, wherein said focus and/or said image frame of said camera optics is controlled in dependence on said signals generated by said signal transmitter.